

CLAIMS

What is claimed is:

1. An endoprosthesis, comprising:
a carrier structure comprising a metallic material;
wherein the metallic material comprises a magnesium alloy of the following composition:
Magnesium: >90%
Yttrium: 3.7% - 5.5%
Rare earths: 1.5% - 4.4% and
Balance: <1%
2. The endoprosthesis of claim 1, wherein:
the yttrium proportion in the magnesium alloy is between 4% and 5%.
3. The endoprosthesis of claim 1, wherein:
the rare earths proportion in the magnesium alloy is between 1.5% and 4%.
4. The endoprosthesis of claim 1, wherein:
the rare earths proportion in the magnesium alloy comprises neodymium.
5. The endoprosthesis of claim 1, wherein:
the balance proportion in the magnesium alloy is formed for the major part by zirconium.
6. The endoprosthesis of claim 1, wherein:
the carrier structure consists essentially of the magnesium alloy.
7. The endoprosthesis of claim 1, wherein:
the carrier structure is extruded.
8. The endoprosthesis of claim 1, wherein:
the endoprosthesis is in the form of an intraluminal endoprosthesis.

9. The endoprosthesis of claim 8, wherein:
the endoprosthesis is in the form of a stent.
10. The endoprosthesis of claim 9, wherein:
the endoprosthesis is in the form of a coronary stent.
11. The endoprosthesis of claim 9, wherein:
the endoprosthesis is in the form of a self-expanding stent.
12. The endoprosthesis of claim 1, wherein:
the carrier structure is produced by cutting a tube from one piece.
13. The endoprosthesis of claim 1, wherein:
the carrier structure is formed from a wire which contains the magnesium alloy.
14. The endoprosthesis of claim 1, wherein:
the carrier structure encloses an elongated hollow space which is open at its ends.
15. The endoprosthesis of claim 14, wherein:
the carrier structure is of a lattice-like structure and is formed by a plurality of legs and radial openings enclosed by said plurality of legs.
16. The endoprosthesis of claim 15, wherein:
the plurality of legs all have a similar cross-sectional area such that a ratio of largest to smallest cross-sectional area is smaller than 2.
17. The endoprosthesis of claim 15, wherein:
the plurality of legs all have a similar minimum diameter such that a ratio of largest to smallest minimum diameter is less than 2.
18. The endoprosthesis of claim 15, wherein:

a first plurality of the plurality of legs form leg rings and a second plurality of the plurality of legs define connecting legs that connect adjacent leg rings together,

wherein the connecting legs are of a smaller cross-sectional area or a smaller minimum diameter than the legs which form the leg rings.

19. The endoprosthesis of claim 1, wherein:
the endoprosthesis carries a physiologically effective active substance.
20. The endoprosthesis of claim 19, wherein:
the endoprosthesis is coated with at least one drug.
21. The endoprosthesis of claim 2, wherein:
the carrier structure consists essentially of the magnesium alloy.
22. The endoprosthesis of claim 3, wherein:
the carrier structure consists essentially of the magnesium alloy.
23. The endoprosthesis of claim 4, wherein:
the carrier structure consists essentially of the magnesium alloy.
24. The endoprosthesis of claim 5, wherein:
the carrier structure consists essentially of the magnesium alloy.
25. The endoprosthesis of claim 2, wherein:
the carrier structure is extruded.
26. The endoprosthesis of claim 3, wherein:
the carrier structure is extruded.
27. The endoprosthesis of claim 4, wherein:
the carrier structure is extruded.
28. The endoprosthesis of claim 5, wherein:

the carrier structure is extruded.

29. The endoprosthesis of claim 6, wherein:
the carrier structure is extruded.
30. The endoprosthesis of claim 9, wherein:
the endoprosthesis is in the form of a peripheral stent.
31. The endoprosthesis of claim 9, wherein:
the endoprosthesis is in the form of a balloon-expandable stent.
32. The endoprosthesis of claim 10, wherein:
the endoprosthesis is in the form of a self-expanding stent.
33. The endoprosthesis of claim 30, wherein:
the endoprosthesis is in the form of a self-expanding stent.
34. The endoprosthesis of claim 10, wherein:
the endoprosthesis is in the form of a balloon-expandable stent.
35. The endoprosthesis of claim 30, wherein:
the endoprosthesis is in the form of a balloon-expandable stent.
36. The endoprosthesis of claim 16, wherein:
a first plurality of the plurality of legs form leg rings and a second plurality of the plurality of legs define connecting legs that connect adjacent leg rings together,
wherein the connecting legs are of a smaller cross-sectional area or a smaller minimum diameter than the legs which form the leg rings.
37. The endoprosthesis of claim 17, wherein:
a first plurality of the plurality of legs form leg rings and a second plurality of the plurality of legs define connecting legs that connect adjacent leg rings together,

wherein the connecting legs are of a smaller cross-sectional area or a smaller minimum diameter than the legs which form the leg rings.